CUMULATIVE INDEXES

CONTRIBUTING AUTHORS, VOLUMES 43–53

A

Adams WW III, 43:599–626
Aeschbacher RA, 45:25–45
Ait-ali T, 52:67–88
Alban C, 51:17–47
Allen GJ, 52:627–58
Alonso-Blanco C, 49:345–70
Appels R, 43:117–43
Argüello-Astorga G, 49:525–55
Armbrust EV, 46:21–44
Arroyo A, 49:453–80
Asada K, 50:601–39

B

Badger MR, 45:369–92
Baldwin IT, 53:299–328
Balu_ka F, 51:289–322
Banks JA, 50:163–86
Barber J, 48:641–71
Barkla BJ, 47:159–84
Barlow PW, 51:289–322
Bartel B, 48:51–66
Bartels D, 47:377–403
Bartley GE, 45:287–301
Barton MK, 48:673–701
Bauer CE, 53:503–21
Baum M, 43:117–43
Beevers H, 44:1–12
Benfey PN, 45:25–45; 50:505–37
Benning C, 49:53–75
Benson AA, 53:1–25
Bevan MW, 49:127–50
Bick J-A, 51:141–66
Binns AN, 45:173–96
Birch RG, 48:297–326
Blatt MR, 44:543–67
Blevins DG, 49:481–500
Boekema EJ, 48:641–71
Bohnert HJ, 50:305–32; 51:463–99
Boller T, 46:189–214
Bonner J, 45:1–23
Boonsirichai K, 53:421–47
Boston RS, 52:785–816
Bouton JH, 44:435–56
Bowes G, 44:309–32
Bowler C, 43:83–116; 53:109–30
Brennicke A, 45:61–78
Bressan RA, 51:463–99
Briggs WR, 45:143–71
Britt AB, 47:75–100
Broadvest J, 49:1–24
Broekaert WF, 44:591–615
Brown JWS, 49:77–95
Brown RH, 44:435–56
Buikema WJ, 44:33–52
Burris RH, 46:1–19
Bush DR, 44:513–42
Bush DS, 46:95–122

C

Cahoon EB, 49:611–41
Campbell AM, 46:21–44
Campbell WH, 50:277–303
Canaani O, 45:493–526
Canny MJ, 46:215–36
Carpita NC, 47:445–76
Cashmore AR, 46:445–74
Caspari T, 47:595–626
Cassab GI, 49:281–309
Chandler PM, 45:113–41
Chandra S, 45:609–31
Chang C-J, 45:663–74
Chappell J, 46:521–47
Chapple C, 49:311–43
Chen R, 53:421–47
Chitnis PR, 52:593–626
Chollet R, 47:273–98
Christiansen J, 52:269–95
Citovsky V, 48:27–50
Clouse SD, 49:427–51
Cobbett C, 53:159–82
Cohen A, 46:147–66
Conklin PL, 52:437–67
Coruzzi GM, 47:569–93
Coschigano KT, 47:569–93
Cosgrove DJ, 50:391–417
Coté GG, 44:333–56
Cournac L, 53:523–50
Covello PS, 43:145–75
Crain RC, 44:333–56
Cramer WA, 47:477–508
Creelman RA, 48:355–81
Croteau R, 52:689–724
Cunningham FX Jr, 49:557–83
Curran AC, 51:433–62
Cushman JC, 50:305–32

D

Danon A, 46:147–66
Das OP, 45:79–112
Davenport RJ, 53:67–107
Davies JP, 51:141–66
Dawe RK, 49:371–95
Dawson WO, 43:527–55
Day DA, 48:493–523
Dean C, 46:395–418
Dean DR, 52:269–95
Delhaize E, 52:527–60

DellaPenna D, 50:133–61
Delmer DP, 50:245–76
Demidchik V, 53:67–107
Demmig-Adams B, 43:599–626
Deng X-W, 47:215–43
Dennis ES, 49:223–47
Denyer K, 48:67–87
de Souza MP, 51:401–32
Dietrich A, 44:13–32
Dietrich MA, 49:501–23
Diner BA, 53:551–80
Dixon RA, 48:251–75
Douce R, 51:17–47
Drake BG, 48:609–39
Drew MC, 48:223–50
Dreyfuss BW, 49:25–51
Drozdowicz YM, 49:727–60
Durnford DG, 47:685–714

E

Elliott KA, 53:131–58
Emes MJ, 51:111–40
Epstein E, 50:641–64
Evans MMS, 48:673–701
Evron Y, 51:83–109

F

Facchini PJ, 52:29–66
Fagard M, 51:167–94
Falciatore A, 53:109–30
Falkowski PG, 45:633–62
Ferl RJ, 47:49–73
Ferris PJ, 46:21–44
Feussner I, 53:275–97
Finnegan EJ, 49:223–47
Fletcher JC, 53:45–66
Flügge U-I, 50:27–45
Forde BG, 53:203–24
Fosket DE, 43:201–40
Fox TC, 49:669–96
Foyer CH, 49:249–79
Frommer WB, 46:419–44
Fry SC, 46:497–520
Fukayama H, 52:297–314
Fukuda H, 47:299–325
Furbank RT, 52:297–314
Furuya M, 44:617–45

G

Galili G, 53:27–43
Gallie DR, 44:77–105
Gantt E, 49:557–83
Gasser C, 49:1–24
Gatenby AA, 45:469–91
Gatz C, 48:89–108
Geiger DR, 45:235–56
Gelvin SB, 51:223–56
Genger RK, 49:233–47
Ghoshroy S, 48:27–50
Gibbs M, 50:1–25
Gilroy S, 48:165–90
Giovannoni J, 52:725–49
Giraudat J, 49:199–222
Giuliano G, 45:287–301
Golbeck JH, 43:293–324
Golden SS, 48:327–54
Goldsbrough P, 53:159–82
Gonzalez-Carranza ZH, 53:131–58
González-Meler MA, 48:609–39
Goodenough UW, 46:21–44
Gray MW, 43:145–75
Green BR, 47:685–714
Green PJ, 45:421–45
Greenberg JT, 48:525–45
Grossman A, 52:163–210
Grusak MA, 50:133–61
Guan C, 53:421–47
Guerinot ML, 49:669–96

H

Hammond-Kosack KE, 48:575–607
Hanic-Joyce PJ, 43:145–75
Hankamer B, 48:641–71
Hanson AD, 44:357–84; 52:119–37
Harada JJ, 46:123–46
Harberd NP, 52:67–88
Hardham AR, 43:491–526
Hardie DG, 50:97–131
Harmon AC, 43:375–414
Harper JF, 51:433–62
Harris EH, 52:363–406
Harrison MJ, 50:361–89
Hasegawa PM, 51:463–99
Haselkorn R, 44:33–52
Hashimoto T, 45:257–85
Hauser B, 49:1–24
Hedden P, 44:107–29; 48:431–60
Heinstein PF, 45:663–74
Henderson JHM, 52:1–28
Hepler PK, 48:461–91
Herrera-Estrella L, 49:525–55
Herrmann KM, 50:473–503
Hilf ME, 43:527–55
Holland MA, 45:197–209
Holt JS, 44:203–29
Holtum JAM, 44:231–51
Hörtensteiner S, 50:67–95
Horton P, 47:655–84
Hrazdina G, 43:241–67
Huang AHC, 43:177–200
Huang D, 47:477–508
Huber JL, 47:431–44
Huber SC, 47:431–44
Hudson A, 51:349–70
Hugouvieux V, 52:627–58
Humphries S, 45:633–62
Hunt AG, 45:47–60
Hunt S, 44:483–511
Huppe HC, 45:577–607
Hwang I, 51:433–62

I

Iba K, 53:225–45
Ingram J, 47:377–403
Inzé D, 43:83–116
Ishiura M, 48:327–54

J

Jacobs TW, 46:317–39
Jacquot J-P, 51:371–400
Jäger K, 43:325–49
Jaworski JG, 48:109–36

Jensen RA, 43:241–67
Job D, 51:17–47
John P, 47:245–71
Johnson CH, 48:327–54
Johnson EA, 51:83–109
Jones AM, 45:393–420
Jones DL, 52:527–60
Jones JDG, 48:575–607

K

Kader J-C, 47:627–54
Kamiya Y, 48:431–60
Kaplan A, 50:539–70
Kende H, 44:283–307
Kerfeld CA, 49:397–425
Kessler A, 53:299–328
Kieber JJ, 48:277–96
King KE, 52:67–88
Kinney AJ, 52:335–61
Kleczkowski LA, 45:339–67
Koch KE, 47:509–40
Kochian LV, 46:237–60
Koide RT, 43:557–81
Kondo T, 48:327–54
Koornneef M, 49:345–70
Kotani H, 49:151–71
Krogmann DW, 49:397–425
Krömer S, 46:45–70
Kwak JM, 52:627–58
Kyozuka J, 53:399–419

L

Lagudah ES, 43:117–43
Lam H-M, 47:569–93
Lamb C, 48:251–75
Langdale JA, 43:25–47
Lartey R, 48:27–50
Layzell DB, 44:483–511
Lee H, 44:591–615
Leigh RA, 50:447–72
Leon P, 49:453–80
Leung J, 49:199–222
Leustek T, 51:141–66
Leyser O, 53:377–98
Li Z-S, 49:727–60
Liang F, 51:433–62
Lichtenthaler HK, 50:47–65
Loewus FA, 52:437–67
Long SP, 45:633–62; 48:609–39
Low PS, 45:609–31
Lu Y-P, 49:727–60
Lukaszewski KM, 49:481–500
Luster DG, 44:131–55

M

MacKay JJ, 49:585–609
Mackenzie S, 49:453–80
MacMillan J, 47:1–21
Maeshima M, 52:469–97
Malkin S, 45:493–526
Mandoli DF, 49:173–98
Maréchal-Drouard L, 44:13–32
Marks MD, 48:137–63
Marrs KA, 47:127–58
Martin C, 48:67–87
Martin MN, 51:141–66
Martinez SE, 47:477–508
Martinoia E, 45:447–67; 49:727–60
Masson PH, 53:421–47
Matile P, 50:67–95
Matsuoka M, 52:297–314
Matzke AJM, 44:53–76
Matzke M, 44:53–76
Maurel C, 48:399–429
Mayfield SP, 46:147–66
McAndrew RS, 52:315–33
McCarty DR, 46:71–93
McCarty RE, 51:83–109
McClung CR, 52:139–62
McCourt P, 50:219–43
McCully ME, 50:695–718
McIntosh L, 48:703–34
Meinke DW, 46:369–94
Melo-Oliveira R, 47:569–93
Merchant S, 49:25–51
Messing J, 45:79–112
Meyer P, 47:23–48
Miernyk JA, 53:357–75
Miller AJ, 52:659–88
Miyao M, 52:297–314
Mok DWS, 52:89–118
Mok MC, 52:89–118
Møller IM, 52:561–91
Mooney BP, 53:357–75
Moore AL, 45:545–75
Moore G, 51:195–222
Moore I, 46:261–88
Morejohn LC, 43:201–40
Mullet JE, 48:355–81
Murata N, 47:541–68

N

Nagy F, 53:329–55
Nelson O, 46:475–96
Nelson T, 43:25–47
Neuhaus HE, 51:111–40
Nielsen K, 52:785–816
Ninnemann O, 46:419–44
Nishida I, 47:541–68
Niyogi KK, 50:333–59
Noctor G, 49:249–79

O

Oaks A, 51:1–16
Ohlrogge JB, 48:109–36
Okita TW, 47:327–50
O'Leary MH, 47:273–98
Oliveira IC, 47:569–93
Oliver DJ, 45:323–37
Olsen LJ, 46:123–46
Olsen O-A, 52:233–67
Oparka KJ, 51:323–47
Ort DR, 43:269–91
Osteryoung KW, 52:315–33
Oxborough K, 43:269–91

P

Palmgren MG, 52:817–45
Pan D, 46:475–96
Pantoja O, 47:159–84
Parthier B, 44:569–89
Patrick JW, 48:191–222
Peacock WJ, 49:223–47
Peeters AJM, 49:345–70
Peltier G, 53:523–50
Plaxton WC, 47:185–214
Polacco JC, 45:197–209

Ponomarev M, 47:477–508
Poole RJ, 44:157–80
Portis AR Jr, 43:415–37
Post-Beittenmiller D, 47:405–30
Powles SB, 44:203–29
Prescott AG, 47:245–71
Price GD, 45:369–92

R

Rademacher W, 51:501–31
Raghothama KG, 50:665–93
Raikhel N, 44:591–615
Randall DD, 53:357–75
Rappaport F, 53:551–80
Raskin I, 43:439–63; 49:643–68
Ratcliffe RG, 52:499–526
Rea P, 44:157–80
Rea PA, 49:727–60
Reinhold L, 50:539–70
Reith M, 46:549–75
Rentsch D, 45:447–67
Rhodes D, 44:357–84
Richards DE, 52:67–88
Roberts DM, 43:375–414
Roberts JA, 53:131–58
Robertson M, 45:113–41
Robertson RN, 43:1–24
Rogers JC, 47:327–50
Roje S, 52:119–37
Ruban AV, 47:655–84
Rubinstein B, 44:131–55
Ryan PR, 52:527–60

S

Saedler H, 47:23–47
Salt DE, 49:643–68
Salvucci ME, 53:449–75
Santa Cruz S, 51:323–47
Sasse JM, 49:427–51
Schaefer DG, 53:477–501
Schäfer E, 53:329–55
Scheres B, 50:505–37
Schiefelbein JW, 45:25–45
Schmidt A, 43:325–49
Schmidt R, 46:395–418
Schnell DJ, 49:97–126
Schreiner RP, 43:557–81
Schroeder JI, 52:627–58
Schumaker KS, 49:501–23
Schürmann P, 51:371–400
Schuster W, 45:61–78
Schwechheimer C, 49:127–50
Scolnik PA, 45:287–301
Sederoff RR, 49:585–609
Seefeldt LC, 52:269–95
Sembdner G, 44:569–89
Servaites JC, 45:235–56
Shachar-Hill Y, 52:499–526
Shanklin J, 49:611–41
Sharkey TD, 52:407–36
Sheen J, 50:187–217
Sheng J, 48:27–50
Shibaoka H, 45:527–44
Shimamoto K, 53:399–419
Short TW, 45:143–71
Simpson CG, 49:77–95
Sinha N, 50:419–46
Smeekens S, 51:49–81
Smirnoff N, 52:437–67
Smith AM, 48:67–87
Smith H, 46:289–315
Smith JL, 47:477–508
Smith RD, 47:101–25; 49:643–68
Sonnewald U, 46:341–68
Soppe W, 49:345–70
Soriano GM, 47:477–508
Spreitzer RJ, 44:411–34; 53:449–75
Staehelin LA, 46:261–88
Staiger CJ, 51:257–88
Staswick PE, 45:303–22
Steudle E, 52:847–75
Stitt M, 46:341–68
Sugiura M, 48:383–98
Sussex I, 49:xiii–xxii
Sussex IM, 47:351–76
Sussman MR, 45:211–34
Sze H, 51:433–62
Szymkowiak EJ, 47:351–76

T

Tabata S, 49:151–71
Takahashi H, 52:163–210
Tanner W, 47:595–626
Tarun AS, 51:401–32
Taylor LP, 48:461–91
Terry N, 51:401–32
Terzaghi WB, 46:445–74
Tester M, 53:67–107
Thiel G, 44:543–67
Thomas H, 50:67–95
Thomashow MF, 50:571–99
Timmermans MCP, 45:79–112
Tolbert NE, 48:1–25
Tomos AD, 50:447–72
Trapp S, 52:689–724
Turpin DH, 45:577–607
Tyerman SD, 43:351–73

U

Udvardi MK, 48:493–523

V

Van Bel AJE, 44:253–81
Vanlerberghe GC, 48:703–34
Van Montagu M, 43:83–116
Vaucheret H, 51:167–94
Verbeke JA, 43:583–98
Verma DPS, 52:751–84
Vermaas W, 44:457–81
Vidal J, 47:273–98
Vierstra RD, 44:385–410
Viitanen PV, 45:469–91
Voelker T, 52:335–61
Vogelmann TC, 44:231–51
Von Arnim A, 47:215–43

W

Walbot V, 43:49–82
Walker JC, 47:101–25
Walters RG, 47:655–84

Waner D, 52:627–58
Wang X, 52:211–31
Wasternack C, 53:275–97
Watts FZ, 45:545–75
Weaver LM, 50:473–503
Weil JH, 44:13–32
Whetten RW, 49:585–609
Williams LE, 52:659–88
Williamson RE, 44:181–202
Wood CK, 45:545–75

X

Xiong J, 53:503–21

Y

Yamada Y, 45:257–85
Yanofsky MF, 46:167–88
Ye Z-H, 53:183–202
Yeh S, 52:407–36
Yohn CB, 46:147–66

Z

Zambryski PC, 43:465–90
Zayed AM, 51:401–32
Zhang H, 47:477–508
Zhu J-K, 51:463–62; 53:247–73
Zielinski RE, 49:697–725
Zourelidou M, 49:127–50

CHAPTER TITLES, VOLUMES 43–53

Prefatory Chapters

A Dilettante Australian Plant Physiologist	RN Robertson	43:1–24
Forty Years in the New World	H Beevers	44:1–12
Chapters From My Life	J Bonner	45:1–23
Breaking the N•N Bond	RH Burris	46:1–19
Reflections of a Bio-Organic Chemist	J MacMillan	47:1–21
The C_2 Oxidative Photosynthetic Carbon Cycle	NE Tolbert	48:1–25
Themes in Plant Development	I Sussex	49:xiii–xxii
Educator and Editor	M Gibbs	50:1–25
Fifty Years of Plant Science Was There Really No Place for a Woman?	A Oaks	51:1–16
Fifty Years as a Plant Physiologist	JHM Henderson	52:1–28
Paving the Path	AA Benson	53:1–25

Biochemistry and Biosynthesis

Superoxide Dismutase and Stress Tolerance	C Bowler, M Van Montagu, D Inzé	43:83–116
In situ Regulation of Chloroplast Coupling Factor Activity	DR Ort, K Oxborough	43:269–91
Structure and Function of Photosystem I	JH Golbeck	43:293–324
Open Questions of Sulfur Metabolism in Plants	A Schmidt, K Jäger	43:325–49
Anion Channels in Plants	SD Tyerman	43:351–73
Calcium-Modulated Proteins: Targets of Intracellular Calcium Signals in Higher Plants	DM Roberts, AC Harmon	43:375–414
Regulation of Ribulose 1,5-Bisphosphate Carboxylase/Oxygenase Activity	AR Portis Jr.	43:415–37
Vacuolar H^+-Translocating Pyrophosphatase	PA Rea, RJ Poole	44:157–80
Protein Degradation in Plants	RD Vierstra	44:385–410
Genetic Dissection of Rubisco Structure and Function	RJ Spreitzer	44:411–34
Physiology and Genetics of Interspecific Hybrids Between Photosynthetic Types	RH Brown, JH Bouton	44:435–56

Molecular-Biological Approaches to Analyze Photosystem II Structure and Function	W Vermaas	44:457–81
Gas Exchange of Legume Nodules and the Regulation of Nitrogenase Activity	S Hunt, DB Layzell	44:483–511
Proton-Coupled Sugar and Amino Acid Transporters in Plants	DR Bush	44:513–42
Hormonal Control of Ion Channel Gating	MR Blatt, G Thiel	44:543–67
The Biochemistry and the Physiological and Molecular Actions of Jasmonates	G Sembdner, B Parthier	44:569–89
Structure and Function of Chitin-Binding Proteins	NV Raikhel, H-I Lee, WF Broekaert	44:591–615
Phytochromes: Their Molecular Species, Gene Families, and Functions	M Furuya	44:617–45
Molecular Analysis of Proteins in the Plant Plasma Membrane	MR Sussman	45:211–34
Diurnal Regulation of Photosynthetic Carbon Metabolism in C_3 Plants	DR Geiger, JC Servaites	45:235–56
Alkaloid Biosynthesis: Molecular Aspects	T Hashimoto, Y Yamada	45:257–85
Molecular Biology of Carotenoid Biosynthesis in Plants	GE Bartley, PA Scolnik, G Giuliano	45:287–301
Storage Proteins of Vegetative Plant Tissues	PE Staswick	45:303–22
The Glycine Decarboxylase Complex from Plant Mitochondria	DJ Oliver	45:323–37
Inhibitors of Photosynthetic Enzymes/Carriers and Metabolism	LA Kleczkowski	45:339–67
The Role of Carbonic Anhydrase in Photosynthesis	MR Badger, GD Price	45:369–92
Auxin-Binding Proteins	AM Jones	45:393–420
The Ribonucleases of Higher Plants	PJ Green	45:421–45
Malate Compartmentalization—Response to a Complex Metabolism	E Martinoia, D Rentsch	45:447–67
Structural and Functional Aspects of Chaperonin-Mediated Protein Folding	AA Gatenby, PV Viitanen	45:469–91
The Use and Characteristics of the Photoacoustic Method in the Study of Photosynthesis	S Malkin, O Canaani	45:493–526
Respiration During Photosynthesis	S Krömer	46:45–70
Regulation of Chloroplast Gene Expression	SP Mayfield, CB Yohn, A Cohen, A Danon	46:147–66

Regulation of Metabolism in Transgenic Plants	M Stitt, U Sonnewald	46:341–68
Starch Synthesis in Maize Endosperms	O Nelson, D Pan	46:475–96
Polysaccharide-Modifying Enzymes in the Plant Cell Wall	SC Fry	46:497–520
Biochemistry and Molecular Biology of the Isoprenoid Biosynthetic Pathway in Plants	J Chappell	46:521–47
14-3-3 Proteins and Signal Transduction	RJ Ferl	47:49–73
Plant Protein Phosphatases	RD Smith, JC Walker	47:101–25
The Functions and Regulation of Glutathione S-Transferases in Plants	KA Marrs	47:127–58
Physiology of Ion Transport Across the Tonoplast of Higher Plants	BJ Barkla, O Pantoja	47:159–84
The Organization and Regulation of Plant Glycolysis	WC Plaxton	47:185–214
Dioxygenases: Molecular Structure and Role in Plant Metabolism	AG Prescott, P John	47:245–71
Phospho*enol*pyruvate Carboxylase: A Ubiquitous, Highly Regulated Enzyme in Plants	R Chollet, J Vidal, MH O'Leary	47:273–98
Biochemistry and Molecular Biology of Wax Production in Plants	D Post-Beittenmiller	47:405–30
Role and Regulation of Sucrose-Phosphate Synthase in Higher Plants	SC Huber, JL Huber	47:431–44
Some New Structural Aspects and Old Controversies Concerning the Cytochrome b_6f Complex of Oxygenic Photosyntheis	WA Cramer, GM Soriano, M Ponomarev, D Huang, H Zhang, SE Martinez, JL Smith	47:477–508
Carbohydrate-Modulated Gene Expression in Plants	KE Koch	47:509–40
Chilling Sensitivity in Plants and Cyanobacteria: The Crucial Contribution of Membrane Lipids	I Nishida, N Murata	47:541–68
The Molecular-Genetics of Nitrogen Assimilation into Amino Acids in Higher Plants	H-M Lam, KT Coschigano, IC Oliveira, R Melo-Oliveira, GM Coruzzi	47:569–93

Membrane Transport Carriers	W Tanner, T Caspari	47:595–626
Lipid-Transfer Proteins in Plants	J-C Kader	47:627–54
Regulation of Light Harvesting in Green Plants	P Horton, AV Ruban, RG Walters	47:655–84
The Chlorophyll-Carotenoid Proteins of Oxygenic Photosynthesis	BR Green, DG Durnford	47:685–714
Auxin Biosynthesis	B Bartel	48:51–66
Regulation of Fatty Acid Synthesis	JB Ohlrogge, JG Jaworski	48:109–36
The Oxidative Burst in Plant Disease Resistance	C Lamb, RA Dixon	48:251–75
Biosynthesis and Action of Jasmonates in Plants	RA Creelman, JE Mullet	48:355–81
Aquaporins and Water Permeability of Plant Mebranes	C Maurel	48:399–429
Gibberellin Biosynthesis: Enzymes, Genes, and Their Regulation	P Hedden, Y Kamiya	48:431–60
Metabolic Transport Across Symbiotic Membranes of Legume Nodules	MK Udvardi, DA Day	48:493–523
Structure and Membrane Organization of Photosystem II in Green Plants	B Hankamer, J Barber, EJ Boekema	48:641–71
Alternative Oxidase: From Gene to Function	GC Vanlerberghe, L McIntosh	48:703–34
Posttranslational Assembly of Photosynthetic Metalloproteins	S Merchant, BW Dreyfuss	49:25–51
Biosynthesis and Function of the Sulfolipid Sulfoquinovosyl Diacyglycerol	C Benning	49:53–75
Protein Targeting to the Thylakoid Membrane	DJ Schnell	49:97–126
Plant Transcription Factor Studies	C Schwechheimer, M Zourelidou, MW Bevan	49:127–50
Ascorbate and Glutathione: Keeping Active Oxygen Under Control	G Noctor, CH Foyer	49:249–79
Plant Cell Wall Proteins	GI Cassab	49:281–309
Molecular-Genetic Analysis of Plant Cytochrome P450-Dependent Monooxygenases	C Chapple	49:311–43
Photosynthetic Cytochromes *c* in Cyanobacteria, Algae, and Plants	CA Kerfeld, DW Krogmann	49:397–425

Genes and Enzymes of Carotenoid Biosynthesis in Plants	FX Cunningham Jr, E Gantt	49:557–83
Recent Advances in Understanding Lignin Biosynthesis	RW Whetten, JJ MacKay, RR Sederoff	49:585–609
Desaturation and Related Modifications of Fatty Acids	J Shanklin, EB Cahoon	49:611–41
Molecular Biology of Cation Transport in Plants	TC Fox, ML Guerinot	49:669–96
Calmodulin and Calmodulin-Binding Proteins in Plants	RE Zielinski	49:697–725
ABC Transporters	PA Rea, Z-S Li, Y-P Lu, YM Drozdowicz, E Martinoia	49:727–60
The 1-Deoxy-D-Xylulose-5-Phosphate Pathway of Isoprenoid Biosynthesis in Plants	HK Lichtenthaler	50:47–65
Chlorophyll Degradation	P Matile, S Hörtensteiner, H Thomas	50:67–95
Plant Protein Serine/Threonine Kinases: Classification and Functions	DG Hardie	50:97–131
Cellulose Biosynthesis: Exciting Times for a Difficult Field of Study	DP Delmer	50:245–76
Nitrate Reductase Structure, Function, and Regulation: Bridging the Gap Between Biochemistry and Physiology	WH Campbell	50:277–303
Crassulacean Acid Metabolism: Molecular Genetics	JC Cushman, HJ Bohnert	50:305–32
Photoprotection Revisited: Genetic and Molecular Approaches	KK Niyogi	50:333–59
Enzymes and Other Agents that Enhance Cell Wall Extensibility	DJ Cosgrove	50:391–417
The Shikimate Pathway	KM Herrmann, LM Weaver	50:473–503
CO_2-Concentrating Mechanisms in Photosynthetic Microorganisms	A Kaplan, L Reinhold	50:539–70
The Water-Water Cycle in Chloroplasts: Scavenging of Active Oxygens and Dissipation of Excess Photons	K Asada	50:601–39

Phosphate Acquisition	KG Raghothama	50:665–93
Biotin Metabolism in Plants	C Alban, D Job, R Douce	51:17–47
The Chloroplast ATP Synthase: A Rotary Enzyme?	RE McCarty, Y Evron, EA Johnson	51:83–109
Nonphotosynthetic Metabolism in Plastids	MJ Emes, HE Neuhaus	51:111–40
Pathways and Regulation of Sulfur Metabolism Revealed Through Molecular Genetic Studies	T Leustek, MN Martin, J Bick, JP Davies	51:141–66
Diversity and Regulation of Plant Ca^{2+} Pumps: Insights from Expression in Yeast	H Sze, F Liang, I Hwang, AC Curran, JF Harper	51:433–62
Growth Retardants: Effects on Gibberellin Biosynthesis and Other Metabolic Pathways	W Rademacher	51:501–31
Alkaloid Biosynthesis in Plants: Biochemistry, Cell Biology, Molecular Regulation, and Metabolic Engineering Applications	PJ Facchini	52:29–66
Cytokinin Metabolism and Action	DWS Mok, MC Mok	52:89–118
One-Carbon Metabolism in Higher Plants	AD Hanson, S Roje	52:119–37
Plant Phospholipases	X Wang	52:211–31
Mechanistic Features of the Mo-Containing Nitrogenase	J Christiansen, DR Dean, LC Seefeldt	52:269–95
Molecular Engineering of C_4 Photosynthesis	M Matsuoka, RT Furbank, H Fukayama, M Miyao	52:297–314
Isoprene Emission from Plants	TD Sharkey, S Yeh	52:407–36
Biosynthesis of Ascorbic Acid in Plants: A Renaissance	N Smirnoff, PL Conklin, FA Loewus	52:437–67
Tonoplast Transporters: Organization and Function	M Maeshima	52:469–97
Plant Mitrochondria and Oxidative Stress: Electron Transport, NADPH Turnover, and Metabolism of Reactive Oxygen Species	IM Møller	52:561–91
Photosystem I: Function and Physiology	PR Chitnis	52:593–626
Guard Cell Signal Transduction	JI Schroeder, GJ Allen, V Hugouvieux, JM Kwak, D Waner	52:627–58

Transporters Responsible for the Uptake and Partitioning of Nitrogenous Solutes	LE Williams, AJ Miller	52:659–88
Ribosome-Inactivating Proteins: A Plant Perspective	K Nielsen, RS Boston	52:785–816
Plant Plasma Membrane H^+-ATPases: Powerhouses for Nutrient Uptake	MG Palmgren	52:817–45
New Insights into the Regulation and Functional Significance of Lysine Metabolism in Plants	G Galili	53:27–43
Nonselective Cation Channels in Plants	V Demidchik, RJ Davenport, M Tester	53:67–107
The Lipoxygenase Pathway	I Feussner, C Wasternack	53:275–97
The Complex Fate of α-Ketoacids	BP Mooney, JA Miernyk, DD Randall	53:357–75
Rubisco: Structure, Regulatory Interactions, and Possibilities for a Better Enzyme	RJ Spreitzer, ME Salvucci	53:449–75
Chlororespiration	G Peltier, L Cournac	53:523–50
Structure, Dynamics, and Energetics of the Primary Photochemistry of Photosystem II of Oxygenic Photosynthesis	BA Diner, F Rappaport	53:551–80

Genetics and Molecular Biology

Transcription, Processing, and Editing in Plant Mitochondria	MW Gray, PJ Hanic-Joyce, PS Covello	43:145–75
Transfer RNAs and Transfer RNA Genes in Plants	L Maréchal-Drouard, JH Weil, A Dietrich	44:13–32
Molecular Genetics of Cyanobacteria Development	WJ Buikema, R Haselkorn	44:33–52
Genomic Imprinting in Plants: Parental Effects and *Trans*-Inactivation Phenomena	M Matzke, AJM Matzke	44:53–76
Posttranscriptional Regulation of Gene Expression in Plants	DR Gallie	44:77–105
The Genetic and Molecular Basis of Root Development	RA Aeschbacher, JW Schiefelbein, PN Benfey	45:25–45

Messenger RNA 3′ End Formation in Plants	AG Hunt	45:47–60
The Plant Mitochondrial Genome: Physical Structure, Information Content, RNA Editing, and Gene Migration to the Nucleus	W Schuster, A Brennicke	45:61–78
Geminiviruses and Their Uses as Extrachromosomal Replicons	MCP Timmermans, OP Das, J Messing	45:79–112
Gene Expression Regulated by Abscisic Acid and Its Relation to Stress Tolerance	PM Chandler, M Robertson	45:113–41
Cell Cycle Control	TW Jacobs	46:317–39
Plant Genomes: A Current Molecular Description	C Dean, R Schmidt	46:395–418
Light-Regulated Transcription	WB Terzaghi, AR Cashmore	46:445–74
Molecular Biology of Rhodophyte and Chromophyte Plastids	M Reith	46:549–75
Homology-Dependent Gene Silencing in Plants	P Meyer, H Saedler	47:23–48
DNA Damage and Repair in Plants	AB Britt	47:75–100
The Molecular Basis of Dehydration Tolerance in Plants	J Ingram, D Bartels	47:377–403
Biochemistry and Molecular Biology of Wax Production in Plants	D Post-Beittenmiller	47:405–30
Carbohydrate-Modulated Gene Expression in Plants	KE Koch	47:509–40
Transport of Proteins and Nucleic Acids Through Plasmodesmata	S Ghoshroy, R Lartey, J Sheng, V Citovsky	48:27–50
Chemical Control of Gene Expression	C Gatz	48:89–108
Cyanobacterial Circadian Rhythms	SS Golden, M Ishiura, CH Johnson, T Kondo	48:327–54
Plant In Vitro Transcription Systems	M Sugiura	48:383–98
Plant Disease Resistance Genes	KE Hammond-Kosack, JDG Jones	48:575–607
Splice Site Selection in Plant Pre-mRNA Splicing	JWS Brown, CG Simpson	49:77–95
Lessons from Sequencing of the Genome of a Unicellular Cyanobacterium, *Synechocystis* Sp. PCC6803	H Kotani, S Tabata	49:151–71
DNA Methylation in Plants	EJ Finnegan, RK Genger, WJ Peacock, ES Dennis	49:223–47

Nuclear Control of Plastid and Mitochondrial Development in Higher Plants	P León, A Arroyo, S Mackenzie	49:453–80
C4 Gene Expression	J Sheen	50:187–217
(Trans)Gene Silencing in Plants: How Many Mechanisms?	H Vaucheret, M Fagard	51:167–94
Cereal Chromosome Structure, Evolution, and Pairing	G Moore	51:195–222
Chlamydomonas as a Model Organism	EH Harris	52:363–406
Molecular Genetics of Auxin Signaling	O Leyser	53:377–98
Rice as a Model for Comparative Genomics of Plants	K Shimamoto, J Kyozuka	53:399–419
A New Moss Genetics: Targeted Mutagenesis in *Physcomitrella patens*	DG Schaefer	53:477–501
Complex Evolution of Photosynthesis	J Xiong, CE Bauer	53:503–21

Cell Differentiation

Oil Bodies and Oleosins in Seeds	AHC Huang	43:177–200
Structural and Functional Organization of Tubulin	DE Fosket, LC Morejohn	43:201–40
Spatial Organization of Enzymes in Plant Metabolic Pathways	G Hrazdina, RA Jensen	43:241–67
Plasma Membrane Redox Activity: Components and Role in Plant Processes	B Rubinstein, DG Luster	44:131–55
Organelle Movements	RE Williamson	44:181–202
Plant Hormone-Induced Changes in the Orientation of Cortical Microtubules: Alterations in the Cross-Linking Between Microtubules and the Plasma Membrane	H Shibaoka	45:527–44
Protein Import into Plant Mitochondria	AL Moore, CK Wood, FZ Watts	45:545–75
Integration of Carbon and Nitrogen Metabolism in Plant and Algal Cells	HC Huppe, DH Turpin	45:577–607
Endocytosis in Plants	PS Low, S Chandra	45:609–31
Peroxisomes and Their Assembly in Higher Plants	LJ Olsen, JJ Harada	46:123–46
The Plant Golgi Apparatus: Structure, Functional Organization, and Trafficking Mechanisms	LA Staehelin, I Moore	46:261–88
Physiology of Ion Transport Across the Tonoplast of Higher Plants	BJ Barkla, O Pantoja	47:159–84

Xylogenesis: Initiation, Progression, and Cell Death	H Fukuda	47:299–325
Compartmentation of Proteins in the Endomembrane System of Plant Cells	TW Okita, JC Rogers	47:327–50
Structure and Biogenesis of the Cell Walls of Grasses	NC Carpita	47:445–76
The Synthesis of the Starch Granule	AM Smith, K Denyer, C Martin	48:67–87
Pollen Germination and Tube Growth	LP Taylor, PK Hepler	48:461–91
Programmed Cell Death in Plant-Pathogen Interactions	JT Greenberg	48:525–45
Pollination Regulation of Flower Development	SD O'Neill	48:547–74
Genetics of Angiosperm Shoot Apical Meristem Development	MMS Evans, MK Barton	48:673–701
Genetic Analysis of Ovule Development	CS Gasser, J Broadvest, BA Hauser	49:1–24
Meiotic Chromosome Organization and Segregation in Plants	RK Dawe	49:371–95
Hormone-Induced Signaling During Moss Development	KS Schumaker, MA Dietrich	49:501–23
Phosphate Translocators in Plastids	U-I Flügge	50:27–45
Gametophyte Development in Ferns	JA Banks	50:163–86
Leaf Development in Angiosperms	N Sinha	50:419–46
Asymmetric Cell Division in Plants	B Scheres, PN Benfey	50:505–37
Signaling to the Actin Cytoskeleton in Plants	CJ Staiger	51:257–88
Cytoskeletal Perspectives on Root Growth and Morphogenesis	PW Barlow, F Baluška	51:289–322
Circadian Rhythms in Plants	CR McClung	52:139–62
Endosperm Development: Cellularization and Cell Fate Specification	O-A Olsen	52:233–67
The Plastid Division Machine	KW Osteryoung, RS McAndrew	52:315–33
Cytokinesis and Building of the Cell Plate in Plants	DPS Verma	52:751–84
Shoot and Floral Meristem Maintenance in Arabidopsis	JC Fletcher	53:45–66
Vascular Tissue Differentiation and Pattern Formation in Plants	Z-H Ye	53:183–202

Tissue, Organ, and Whole Plant Events

Role of Salicylic Acid in Plants	I Raskin	43:439–63
Chronicles from the *Agrobacterium*-Plant Cell DNA Transfer Story	PC Zambryski	43:465–90

Cell Biology of Pathogenesis	AR Hardham	43:491–526
Host-Range Determinants of Plant Viruses	WO Dawson, ME Hilf	43:527–55
Regulation of the Vesicular-Arbuscular Mycorrhizal Symbiosis	RT Koide, RP Schreiner	43:557–81
Fusion Events During Floral Morphogenesis	JA Verbeke	43:583–98
Strategies of Phloem Loading	AJE Van Bel	44:253–81
Ethylene Biosynthesis	H Kende	44:283–307
Facing the Inevitable: Plants and Increasing Atmospheric CO_2	G Bowes	44:309–32
Biochemistry of Phosphoinositides	GG Coté, RC Crain	44:333–56
Quaternary Ammonium and Tertiary Sulfonium Compounds in Higher Plants	D Rhodes, AD Hanson	44:357–84
The Transduction of Blue Light Signals in Higher Plants	TW Short, WR Briggs	45:143–71
Cytokinin Accumulation and Action: Biochemical, Genetic, and Molecular Approaches	AN Binns	45:173–96
PPFMs and Other Covert Contaminants: Is There More to Plant Physiology than Just Plant?	MA Holland, JC Polacco	45:197–209
Taxol	PF Heinstein, C-J Chang	45:663–74
Molecular Genetics of Sexuality in *Chlamydomonas*	UW Goodenough, EV Armbrust, AM Campbell, PJ Ferris	46:21–44
Genetic Control and Integration of Maturation and Germination Pathways in Seed Development	DR McCarty	46:71–93
Calcium Regulation in Plant Cells and its Role in Signaling	DS Bush	46:95–122
Floral Meristems to Floral Organs: Genes Controlling Early Events in *Arabidopsis* Flower Development	MF Yanofsky	46:167–88
Chemoperception of Microbial Signals in Plant Cells	T Boller	46:189–214
Apoplastic Water and Solute Movement: New Rules for an Old Space	MJ Canny	46:215–36
Cellular Mechanisms of Aluminum Toxicity and Resistance in Plants	LV Kochian	46:237–60
Molecular Genetics of Plant Embryogenesis	DW Meinke	46:369–94
Light Control of Seedling Development	A von Arnim, X-W Deng	47:215–43

What Chimeras Can Tell Us About Plant Development	EJ Szymkowiak, IM Sussex	47:351–76
Chilling Sensitivity in Plants and Cyanobacteria: The Crucial Contribution of Membrane Lipids	I Nishida, N Murata	47:541–68
Molecular Genetic Analysis of Trichome Development in Arabidopsis	MD Marks	48:137–63
Phloem Unloading: Sieve Element Unloading and Post-Sieve Element Transport	JW Patrick	48:191–222
Oxygen Deficiency and Root Metabolism: Injury and Acclimation Under Hypoxia and Anoxia	MC Drew	48:223–50
The Ethylene Response Pathway in Arabidopsis	JJ Kieber	48:277–96
Elaboration of Body Plan and Phase Change During Development of Acetabularia: How is the Complex Architecture of a Giant Unicell Built?	DF Mandoli	49:173–98
Abscisic Acid Signal Transduction	J Giraudat, J Leung	49:199–222
Genetic Control of Flowering Time in Arabidopsis	M Koornneef, C Alonso-Blanco, AJM Peeters, W Soppe	49:345–70
Brassinosteroids: Essential Regulators of Plant Growth and Development	SD Clouse, JM Sasse	49:427–51
Boron in Plant Structure and Function	DG Blevins, KM Lukaszewski	49:481–500
Evolution of Light-Regulated Plant Promoters	G Argüello-Astorga, L Herrera-Estrella	49:525–55
Phytoremediation	DE Salt, RD Smith, I Raskin	49:643–68
Genetic Analysis of Hormone Signaling	P McCourt	50:219–43
Molecular and Cellular Aspects of the Arbuscular Mycorrhizal Symbiosis	MJ Harrison	50:361–89
Plant Cold Acclimation: Freezing Tolerance Genes and Regulatory Mechanisms	MF Thomashow	50:571–99
Silicon	E Epstein	50:641–64
Roots in Soil: Unearthing the Complexities of Roots and Their Rhizospheres	ME McCully	50:695–718
Sugar-Induced Signal Transduction in Plants	S Smeekens	51:49–81
Selenium in Higher Plants	N Terry, AM Zayed, MP de Souza, AS Tarun	51:401–32

How Gibberellin Regulates Plant Growth and Development: A Molecular Genetic Analysis of Gibberellin Signaling	DE Richards, KE King, T Ait-ali, NP Harberd	52:67–88
Function and Mechanism of Organic Anion Exudation from Plant Roots	PR Ryan, E Delhaize, DL Jones	52:527–60
Defensive Resin Biosynthesis in Conifers	S Trapp, R Croteau	52:689–724
Molecular Biology of Fruit Maturation and Ripening	J Giovannoni	52:725–49
The Cohesion-Tension Mechanism and the Acquisition of Water by Plant Roots	E Steudle	52:847–75
Abscission, Dehiscence, and Other Cell Separation Processes	JA Roberts, KA Elliott, ZH Gonzalez-Carranza	53:131–58
Phytochelatins and Metallothioneins: Roles in Heavy Metal Detoxification and Homeostasis	C Cobbett, P Goldsbrough	53:159–82
Local and Long-Range Signaling Pathways Regulating Plant Responses to Nitrate	BG Forde	53:203–24
Acclimative Response to Temperature Stress in Higher Plants: Approaches of Gene Engineering for Temperature Tolerance	K Iba	53:225–45
Salt and Drought Stress Signal Tranduction in Plants	J-K Zhu	53:247–73
Plant Responses to Insect Herbivory: The Emerging Molecular Analysis	A Kessler, IT Baldwin	53:299–328
Phytochromes Control Photomorphogenesis by Differentially Regulated, Interacting Signaling Pathways in Higher Plants	F Nagy, E Schäfer	53:329–55
Root Gravitropism: An Experimental Tool to Investigate Basic Cellular and Molecular Processes Underlying Mechanosensing and Signal Transmission in Plants	K Boonsirichai, C Guan, R Chen, PH Masson	53:421–47

Acclimation and Adaptation

Developmental Genetics of C_4 Photosynthesis	T Nelson, JA Langdale	43:25–47
Wide Crosses in Cereals	M Baum, ES Lagudah, R Appels	43:117–43
Photoprotection and Other Responses of Plants to High Light Stress	B Demmig-Adams, WW Adams III	43:599–626

Mechanisms and Agronomic Aspects of Herbicide Resistance	JS Holt, SB Powles, JAM Holtum	44:203–29
Plant Tissue Optics	TC Vogelmann	44:231–51
Photoinhibition of Photosynthesis in Nature	SP Long, S Humphries, PG Falkowski	45:633–62
Physiological and Ecological Function Within the Phytochrome Family	H Smith	46:289–315
The Molecular Basis of Dehydration Tolerance in Plants	J Ingram, D Bartels	47:377–403
Plant Transformation: Problems and Strategies for Practical Application	RG Birch	48:297–326
More Efficient Plants: A Consequence of Rising Atmospheric CO_2?	BG Drake, MA González-Meler, SP Long	48:609–39
Improving the Nutrient Composition of Plants to Enhance Human Nutrition and Health	MA Grusak, D DellaPenna	50:133–61
Macronutrient Utilization by Photosynthetic Eukaryotes and the Fabric of Interactions	A Grossman, H Takahashi	52:163–210
Variations in the Biosynthesis of Seed-Storage Lipids	T Voelker, AJ Kinney	52:335–61
Revealing the Molecular Secrets of Marine Diatoms	A Falciatore, C Bowler	53:109–30

Methods

Strategies for Mutagenesis and Gene Cloning Using Transposon Tagging and T-DNA Insertional Mutagenesis	V Walbot	43:49–82
Modern Methods for the Quantitative Analysis of Plant Hormones	P Hedden	44:107–29
Heterologous Expression of Genes in Bacterial, Fungal, Animal, and Plant Cells	WB Frommer, O Ninnemann	46:419–44
Fluorescence Microscopy of Living Plant Cells	S Gilroy	48:165–90
The Pressure Probe: A Versatile Tool in Plant Cell Physiology	AD Tomos, RA Leigh	50:447–72
Probing Plant Metabolism with NMR	RG Ratcliffe, Y Shachar-Hill	52:499–526